

CLAIMS

I CLAIM:

1. ~~In an identification wristband for emitting a~~
radio frequency identification signal, the combination of:

5 a first flexible polymer lamina;

a second flexible polymer lamina;

programmable encoder circuitry encapsulated
between said laminae for defining identification
information;

10 an antenna encapsulated between said laminae;

and

a signal generator circuitry encapsulated by
said laminae and responsive to said encoder
circuitry for applying a radio frequency signal
15 bearing said identification information to said
antenna.

2. The identification wristband of claim 1
wherein said circuitry is embodied in an IC chip
encapsulated between said first and second laminae.

20 3. ~~The identification wristband of claim 1~~
wherein said circuitry is formed of polymer materials
deposited on one of said laminae.

4. The wristband of claim 1 including a third
intermediate lamina located between said first and second
25 laminae, said intermediate lamina having said circuitry

~~deposited thereupon in conjunction with said antenna and encapsulated between said first and second laminae.~~

5 5. The identification wristband of claim 1 wherein said circuitry is embodied in an IC chip deposited on an intermediate third lamina and encapsulated between said first and second laminae.

6. The identification wristband of claim 5 wherein said circuitry is formed of polymeric materials deposited on said third intermediate lamina.

10 7. In a system for providing identification information, the combination of:

 a reader for emitting an electromagnetic signal;

15 an identification wristband responsive to said electromagnetic signal by producing an identification signal, said wristband including:

 a first lamina of polymeric material;

20 a second lamina of polymeric material secured to said first lamina;

 an antenna for receiving said electromagnetic signal located between said laminae; and

25 circuitry between said laminae coupled to said antenna for generating said identification signal in response

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~~to said electromagnetic signal received~~
by said antenna, and said reader being
responsive to said identification
signal.

5 8. The identification wristband of claim 7
wherein portions of said circuitry are defined by a
conductive ink pattern disposed on one of said laminae.

9. The identification wristband of claim 7
wherein said circuitry is defined by polymeric conductive
10 ~~patterns on one of said laminae.~~

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10. In an information transmitting and receiving
system, the combination of:

 a reader for emitting an electromagnetic
signal;

15 an identification wristband for receiving
said electromagnetic signal and producing a
responsive identification signal, said wristband
including:

 a first polymeric material lamina;

20 a second polymeric material lamina;

and

 a third intermediate polymeric
material lamina interposed between said
first and second laminae, said first,
25 second, and third laminae being secured
to one another;

an antenna for receiving said
electromagnetic signal included between
two of said laminae;

circuitry between said laminae
coupled to said antenna for generating
said identification signal in response
to said electromagnetic signal received
by said antenna; and

said reader being responsive to
said identification signal.

10 ¹⁰11. The identification wristband of claim ⁹10
wherein portions of said circuitry are defined by a
conductive ink pattern deposited on said third intermediate
lamina.

15 ¹¹12. The identification wristband of claim ⁹10
wherein portions of said circuitry are defined by polymeric
conductors on said third intermediate lamina.

20 ~~13. In a method of fabricating a wristband for~~
producing a radio frequency identification signal, the steps
of:

dispensing a continuous first lamina of
polymeric material;

depositing an RFID circuit on said first
lamina;

25 depositing an antenna on said first lamina
~~connected to said RFID circuit;~~

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~~depositing a second polymeric lamina over
said RFID circuit and securing it to said first
lamina and encapsulating said RFID circuit and
said antenna between said first and second
laminae.~~

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14. The method of claim ¹²13 in which said RFID
circuit is provided by conductive ink on said first lamina.

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15. The method of claim ¹²13 wherein said RFID
circuit is provided by polymeric conductor means on said
10 first lamina.

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16. The method of forming an identification
wristband for producing a radio frequency identification
signal, said method including the steps of:

dispensing an intermediate polymeric lamina;

15 depositing an RFID circuit including an
antenna on said intermediate lamina;

securing a top polymeric lamina to said
intermediate lamina in overlying relationship with
said RFID circuit; and

20 securing a bottom polymeric lamina in
underlying relationship with said intermediate
lamina to encapsulate said intermediate lamina,
and forming the configuration of said wristband on
said laminae to permit the separation of said
25 wristband therefrom.

22